

organs. Between vent and tip of tail was a deep gash in the skin, about an inch long, as though inflicted by the fang of a lungoor. If the presence of this python in that nullah was responsible for the absence of monkeys there for nearly a week, how long had the ape been inside it?

'GLENCAIRN',
HOBART ROAD,
OOTACAMUND,
December 14, 1952.

K. BOSWELL,
Capt. I.A.M.C. (Retd.).

21. SOME MORE NOTES ON *UROPELTIS MACROLEPIS*
(PETERS) WITH SPECIAL REFERENCE TO
SPECIMENS FROM MAHABLESHWAR
(WESTERN GHATS, BOMBAY)

I recently (*J.B.N.H.S.*, 50: 950) recorded a specimen of the Rough-tailed Earth Snake—*Uropeltis macrolepis* (Peters)—from Mahableshwar which appeared to differ from the others in our collection in the presence of an unbroken brownish-yellow stripe along each flank throughout the length of the body, as compared to a line of spots in the others.

Both varieties have a broad yellow or orange stripe on each side of the tail, sometimes meeting on the under surface almost at the tip of the tail. The anal scale is also yellow in some and concolourous with the ventrals in others, but an examination of the material available indicates that neither of these two colour differences is a sexual characteristic.

Mr. D. J. Panday recently obtained two more specimens at Mahableshwar and these (both males) also have an unbroken stripe along the side.

Their lepidosis also corresponds with that of the previous specimen including the sub-caudal count of 13 scales instead of 7-10 (Malcolm Smith's Fauna, Vol. III: 79) or 7-12 (Wall's Handlist of the Snakes of the Indian Empire, *J.B.N.H.S.*, Vol. xxix: 356 in those from other places.

Dr. Malcolm Smith's suggestion that the striped variety with 13 sub-caudals may be restricted to Mahableshwar appears to be substantiated.

BOMBAY,
December 23, 1952.

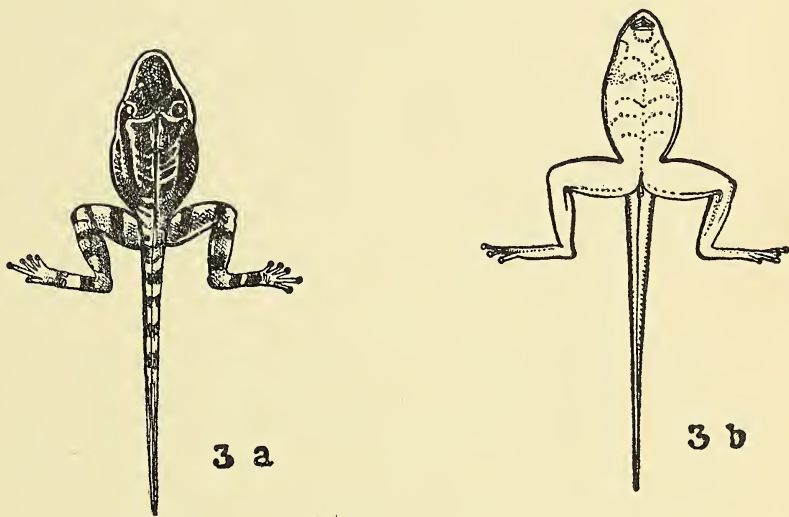
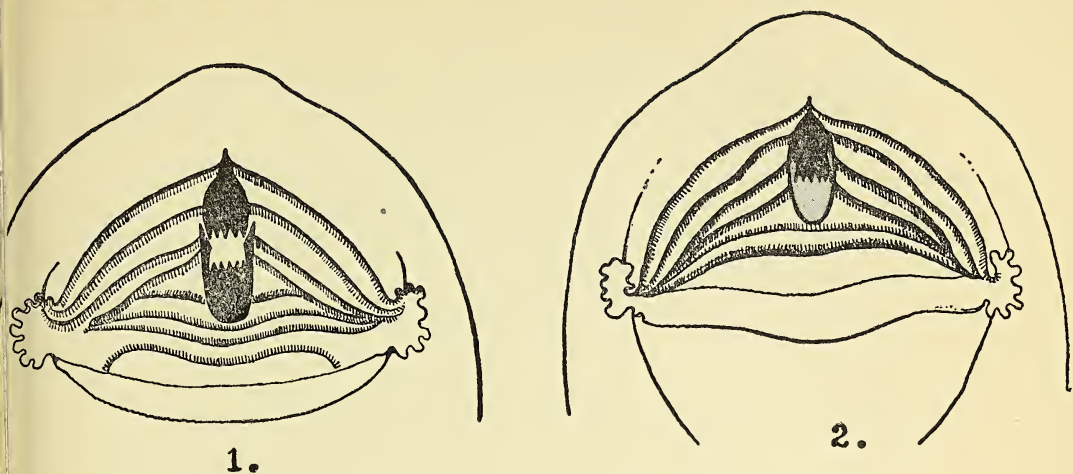
V. K. CHARI

22. THE TADPOLE OF *RANA LEITHII* BOULENGER

(With a plate)

On 17th September 1950, Mr. Humayun Abdulali brought in two tadpoles and a frog from Suriamal, 2,500 ft. North Thana, Bombay.

The frog was picked up on a ghat road and the tadpoles obtained on almost vertical rocks alongside, over which water was flowing into the road-side gutter.



RANA LEITHII BOULENGER

pen mouth-disc showing the serrated edges of the upper and the lower mandibles of the beak, $\times 22$.

pen mouth-disc showing the beak and dentition, $\times 22$.

two-legged stage of the tadpole, $\times 2$. (a) Dorsal view. (b) Ventral view. (c) Lateral view.

On 1st September 1952, Mr. Abdulali obtained some more tadpoles and we made another attempt to identify them in Bombay. From the published records they compared well with *Rana beddomii* (Günther) but with several marked differences.

The frog obtained on the first occasion, was also identified as *Rana leithii* Boulenger and the circumstantial evidence points to the tadpoles being of this species which do not appear to have been described before.

All the specimens collected are far advanced in their development, being of the two legged and later stages; within these, the series is complete up to the juvenile.

Head and Body: Oval with the broader end towards the anus; branchial region not very prominent. Snout bluntly pointed and declivous; eyes dorsal, prominent, and rather large; nostrils very inconspicuous and nearer to the eye than to the tip of the snout. Spiracle slit-like and placed near the eye. Two small grooves, each starting from the posterior outer edge of the eye, meet centrally on the back and run as a median dorsal groove along the body to the base of the dorsal fin. The back on either side of the median groove has a 'ribbed' appearance.

Mouth: The mouth-disc is entirely ventral in position and triangular in shape. The upper lip, deeply notched in the middle, is without tubercles and has the first row of teeth fringing it. The dental formula is $1+1:1:2+2/2+2:2$. The beak appears oval, the mandibles horny and black, their edges being strongly serrated. The 'teeth' look like spear blades. The tubercles of the mouth-disc are restricted to the two corners of the mouth. The upper and lower lips are clearly demarcated.

Tail: Nearly twice the length of the head and body and slender in build. The fin membranes are very poorly developed. The dorsal fin is seen as a ridge. The ventral is equally vestigial though it broadens out slightly towards the end. The muscular portion tapers to a fine point.

Anus: The anus is prominently tubular and situated ventrally at the junction of the tail and the body.

Colour: The colour of the body varies from a uniform slaty to pale brown with tail and hind limbs pale brown and barred. The ventral side is immaculate except for a few patches of minute black spots behind the mouth. In some specimens the fully developed fore limbs can be seen through the transparent skin.

The measurements of specimens in which the hind limbs alone have appeared are given below:—

Total length	...	35 mm.	31 mm.	35 mm.	30 mm.
Length of head and body		12 mm.	11 mm.	12 mm.	11 mm.
Breadth	„	7 mm.	5.5 mm.	6 mm.	5 mm.
Depth	„	4 mm.	4 mm.	4.5 mm.	3.5 mm.
Depth of tail	...	2 mm.	2 mm.	2 mm.	2 mm.

The tadpoles differ from those of *Rana beddomii* (Günther) in the following characters:—

Mouth-disc	<i>R. beddomii</i> (Günther)	<i>R. leithii</i> (Boulenger)
Beak ...	Narrow and strongly hooked like that of a parrot. Edges of the upper and lower mandibles smooth.	Oval and blunt. Both serrated.
Lower lip ...	Has a marginal fringe of minute tubercles.	Tubercles restricted to the sides of the mouth.
Anus ...	Does not form a tube.	Anus tubular.

The larval habits of both the species appear to be very similar. Mr. Humayun Abdulali informs us that the tadpoles were obtained on almost vertical rocks on the roadside over which water was flowing into the road-side gutter. The tadpoles were very agile, jumping several inches on the slippery surfaces of the rocks to evade capture and were quite numerous as four or five could be seen over an area of a few square feet. Annandale (1918) has similar remarks on the tadpole of *R. beddomii* (Günther).

Boulenger (1920) in his 'A Monograph of the South Asian, Papuan, Melanesian and Australian Frogs of the Genus *Rana*'—*Records of the Indian Museum*, Vol. xx, pp. 115-116, has included a paragraph in parenthesis in his account on *R. beddomii* (Günther) as under:

'Capt. F. B. Seymour Sewell, I.M.S., has recently found the characteristic tadpoles of this species at Khandala in the Bombay Ghats. They are remarkable not only for their long tail but also for the fact that their front legs remain concealed beneath the skin for a long period. In their two-legged stage they cling to the damp rocks, both horizontal and vertical and are extremely active out of water leaping powerfully when disturbed. N.A.'

We are inclined to suggest that the tadpoles collected by Captain Seymour Sewell from Khandala really belonged to this species and not to *R. beddomii* (Günther) which has not been recorded north of Malabar, while *R. leithii* Boulenger has been collected northwards from Gersoppa in N. Kanara to the hills near Bombay.

PRINCE OF WALES MUSEUM (NATURAL HISTORY),
BOMBAY-1,

V. K. CHARI
J. C. DANIEL

November 15, 1952.

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